

Dry cooler specification

	Project	1400 kW dry cooler plant		
	Quotation	Q060003927R1 / 40% E.glycol		
	Order no.	609478		
Cooler	Dry cooler	Type	VesVLD-651-H-2x150	
	Installation mode		Induced draft	
	Calculation mode		Certified calculation	
	Total no. of coolers per GenSet	Pc	2	
	Overall dimensions	App m	10x5	
	Total cooling capacity	kW	1.400,0	
	Total fluid flow	m ³ /h	242,8	
	Medium side pressure drop	kPa	23	
	Fluid temperatures (in- & outlet)	°C	18	12
	Design ambient temperature (in- & outlet)	°C	-4,2	4,6
	Calculated sound power level in free field	dB(A)	84 ± 2	
	Calculated sound pressure level in free field 1,5 m above ground level at	dB(A) m	53 ± 2 10	

Each cooler consists of:

Coil	Type	P40-5R-60T-9600A-2,0pa-150C		
	No. of coils per cooler	Pc	2	
	Tube dimensions	mm	ø16,45x0,40	
	Header dimensions	"	2 x 4	
	Header connections	DN	2 x 100	
	Tube & header material		Cu	
	Fin pitch	mm	2,0	
	Thickness	mm	0,11	
	Fin material		Al	
	External surface	m ²	2 x 3511	
	Floating fin block		No	
	Internal volume	l	2 x 608	
	Max. oper. pressure/test pressure	barg	10	16
	Safety margen, surface	%	-	
Safety margen, capacity	%	-		
Min./max. Operating temperature	°C	-25	100	
Fluid	Medium	Water w. 40% ethylene glycol		
	Specific weight	kg/m ³	1067	
	Viscosity	Ns/m ² x10 ⁻³	5,08	
	Heat conductivity	W/mx°K	0,41	
	Specific heat	J/kgx°K	3.242	
	Design flow	m ³ /h	2 x 60,7	
	Cooling capacity	kW	2 x 350	
Motor	Make	Ziehl-Abegg		
	Size	FN125-ZIL.GL.V3P1		
	Type	AC for VFD or ON/OFF drive (drive not incl.)		
		EC incl. 0-10 V speed control		
		x		
	Nominel power / At design temperature	kW/°C	1,9	60
	Full load current	A	3,1	
	Required fan shaft power	kW	1,58	
	Voltage/frequency	V/Hz	3x400	50
	Protection (modified with drain)		IP 54	
	Modified for dry cooler operation		x	
	Anti condensation heating element		-	
	Termistors		x	
No. of motors & fans	Pc	6		
Motor & fan speed	RPM	566		
Fan	Make	Ziehl-Abegg		
	Fan diameter	mm	1.250	
Weight	Dry	kg	3.940	
	Operational	kg	5.160	
Accessories	Service switch			
	Wire screen above fan casing	Steel; painted		
	Legs (to be mounted at site)			